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AUTHOR Geeslin, Dorine H.; Mutchler, Virginia S.
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ABSTRACT

Twenty children between six and nine years of age and of average or above average intelligence were used in a study to determine whether methods that restrict pupil participation to visual attention or oral response are of more or less value in attempts to recognize words than methods that involve activity with the hands, such as tracing or typing. Forty words were chosen at random from among those words occurring less than once per thousand running words. Ten of the words were taught by each of four different methods. As each word was shown to the pupil and named by the teacher, the pupil repeated the word and attempted to learn it by either oral spelling, phonics, typing, or tracing. The order of methods and the words taught by each method were randomly determined for each subject. No statistically significant differences were found across teaching methods, suggesting that any method that calls the pupil's attention to the word can be used successfully.
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A COMPARISON OF FOUR METHODS OF TEACHING WORD RECOGNITION

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The Problem and Its Importance

After analyzing a mass of research, Chall (1967) recommended a code emphasis for teaching reading prior to grade four and included letter names, letter-sound correspondence, and the use of writing, tracing or typing under code emphasis. A tracing method was thoroughly described by Fernald (1943), who reported that she had never had a failure while using it. Cooper (1947) used a sand-covered surface in teaching words. Pulliam (1945) used indented word cards to guide tactile learning of letters and words.

An investigation made by Alwitt (1963) underscored the importance of the reader's giving his attention to word parts. This view concurred with the conclusions of Ofman and Shaevitz (1963), who found that "visual tracing" in which a bead of light, rather than a student's finger, traced the word was just as effective as the kinesthetic method. They advahced the opinion that the attention factor was the most important part of the kinesthetic method.

The question. These studies have generated a question: Are words learned as well by methods that restrict the pupil's participation to visual attention and oral responses, such as

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spelling or sounding, or is it helpful for the youngster to add activity with his hands, such as tracing or typing, as he gives his visual attention and makes an oral response in learning new words?

The hypotheses. The following hypotheses were investigated:

1. There will be no difference in the number of words learned by members of a multi-aged laboratory school class when the words are taught by a spelling technique, by sounding, by typing or by tracing.

2. No difference will be found in the number of words learned by the older subjects and the number learned by the younger under the four methods when data are grouped according to the ages of the subjects.

Alpha level. Alpha level was set at .05. The hypotheses were investigated by two-way analysis of variance.

Procedures

Subjects. The twenty pupils who enrolled in Center 2 of the Jones-Jaggers Laboratory School at Western Kentucky University were the subjects of the investigation. Ten of them were under the age of eight at the close of summer school, the youngest being six years nine months. Ten of them were older than eight at the close of summer school, the oldest being nine years six months. These were non-deprived, middle class youngsters, many of whom were the children of teachers who were enrolled in classes at the university. Others were the

children of university faculty or staff members. Several lived in Bowling Green and had registered for various reasons. None had repeated a grade or been labeled a problem learner. Approximately half had finished two years in school; the remainder, one year. They had attended twelve different schools in three states the preceding term. They were housed together in Center 2 at Jones-Jaggers because too many had registered for Center 1. The laboratory school director and the Center 1 teacher had selected the children they believed could work well with Center 2 children even though the latter had been in school longer.

Materials. The Teacher's Word Book of 30,000 Words by Thorndike and Lorge (1944) was used in selecting one-syllable words for teaching. Forty words were chosen at random from those occurring no more often than once per one thousand running words. These words were printed in manuscript letters one inch high on three-by-five cards.

The work. An experimenter met with each subject for five consecutive days. Each child was taught ten words each day by a different method until forty words had been presented by the four methods. Recognition of the ten words learned by a single method was tested twenty-four hours after the presentation. The methods, randomly assigned as to order, were:

Method I (Phonics): Each word was shown and pronounced by the experimenter. Then the experimenter pronounced the word by its phonic elements (consonants, consonant blends, diagraphs, vowels and diphthongs). Next the subject

pronounced the word, sounded it phonic unit by phonic unit, and re-pronounced it. The remainder of a ten-minute instructional period was devoted to the repetition of these procedures by the subject as prompted by the experimenter.

Method 2 (Tracing): Each word was shown and pronounced by the experimenter. Then the subject was instructed to trace each letter with his finger as he pronounced the word in such a way that the sounds represented by a letter or letters were enunciated at the same time that those letters were being traced. After each word had been presented in this fashion, the student continued to trace and pronounce for the remainder of the ten-minute instructional period.

Method 3 (Typing): Each word was shown and pronounced by the experimenter. Then the student pronounced the word and reproduced it on a typewriter. After each word had been presented and typed by the student, the remainder of the instructional period was used for the repronouncing and re-typing of the words by the student.

Method 4 (Spelling): Each word was shown and pronounced by the experimenter. Next the word was spelled orally. Then the subject pronounced the word, spelled it, and pronounced it again. After all ten words had been presented in this manner, they were shown again to the student with the request that he name and spell each word. This was continued until ten minutes had elapsed from the beginning of the session.

Twenty subjects were each presented a total of forty words. Their identifications on the days following the presentations numbered 460, or 57 1/2 per cent of the total. Table 1 shows the number of words retained by each subject when taught ten words by each method.

TABLE I

NUMBER OF WORDS RETAINED BY EACH OF TWENTY SUBJECTS WHEN TAUGHT BY FOUR DIFFERENT METHODS

Subject	Phonics	Tracing	Typing	Spelling
1	6	6	8	5
2	3	0	5	3
3	5	6	2	3
4	5	9	8	9
5	7	8	9	7
6	8	9	8	8
7	10	10	10	9
8	3	6	2	0
9	10	10	10	10
10	8	6	5	9
11	6	7	4	6
12	5	5	6	4
13	0	0	0	0
14	9	9	10	9
15	9	10	10	10
16	2	5	2	3
17	1	5	4	4
18	0	0	0	1
19	3	5	5	6
20	10	7	7	4
Totals	112	123	115	110

Since age of the subjects was being considered, the data were rearranged for a two-way analysis of variance. Columns resulted from the four techniques; rows, from age of the subjects. Scores of subjects 1, 2, 5, 6, 8, 11, 12, 14, 16 and 18 were considered together as B_1 since those ten were older than the remaining subjects, whose scores formed B_2, as shown in Table 2.

TABLE 2

DATA ARRANGED TO SHOW NUMBER OF WORDS RETAINED BY SUBJECTS ON TWO AGE LEVELS

Variable B (Age)	Variable A (Method)			
	Phonics	Tracing	Typing	Spelling
B_1 Older	3	0	5	3
	9	8	9	7
	8	9	8	8
	3	6	2	0
	6	7	4	6
	5	5	6	4
	6	6	8	5
	9	9	10	9
	2	5	2	3
	0	0	0	1
	51	55	54	46
B_2 Younger	0	0	0	0
	5	6	2	3
	5	9	8	9
	10	10	10	9
	10	10	10	10
	8	6	5	9
	9	10	10	10
	1	5	4	4
	3	5	5	6
	10	7	7	4
	61	68	61	64

The analysis of variance is shown in Table 3.

TABLE 3

ANALYSIS OF VARIANCE: DATA SHOWN IN TABLE 2

Source	SS	df	MS	F
Variable A	4.9	3	1.63	.15
Variable B	28.8	1	28.8	2.58
A X B	3.3	3	1.1	.098
Within	804.	72	11.17	
Totals	841	79		

In no case was F sufficiently large to indicate statistically significant results.

Conclusions and Implications

Conclusions. Since no statistically significant differences appeared in the analysis of variance of the number of words learned when taught by four different methods, the first null hypothesis was retained. It stated there would be no difference in the number of words learned by members of a multi-aged laboratory school class when the words are taught by a spelling technique, by sounding, by typing, or by tracing. Since there was also no difference from a statistical standpoint when age was considered, the second null hypothesis was retained. It stated that no differences would be found in the number of words

learned by the older subjects and the number learned by the younger under the four methods.

Implications. This study has given support to those investigators who have found that any method which calls the pupil's attention to the word can be used successfully. It provides no evidence that the non-deprived, middle class child recognizes words better when the presentation goes beyond the visual and oral to include an involvement with the pupil's hands.

REFERENCES

Alwitt, L. F. Decay of Immediate Memory for Visually Presented Digits Among Nonreaders and Readers. Journal of Educational Psychology, 1963, 54, 144-148.

Chall, J. Learning to Read: The Great Debate. New York: McGraw Hill, 1967.

Cooper, J. L. A procedure for Teaching Non-Readers. Education, 1947, 67, 494-499.

Fernald, G. Remedial Techniques in Basic School Subjects. New York: McGraw Hill, 1943.

Ofman, W. and Shaevitz, M. The Kinesthetic Method in Remedial Reading. Journal of Experimental Education, 1963, 31, 317-320.

Pulliam, R. A. Indented Word Cards as a Sensori-Motor Aid in Vocabulary Development. Peabody Journal of Education, 1963, 54, 38-42.

Thorndike, E. L. and Lorge, I. The Teacher's Word Book of 30,000 Words. New York: Bureau of Publications, Teachers College, Columbia University, 1944.